

REMARKS**Summary of the Office Action**

Claims 1 and 3-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shozakai et al., A Non-Iterative Model-Adaptive E-CMN/PMC Approach for Speech Recognition in Car Environments (“Shozakai”).

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shozakai in view of U.S. Patent No. 5,890,113 to Takagi.

Claims 1-9 are objected to.

The specification is objected to.

The drawings are objected to.

Matters of Form

Applicants have amended the specification, as well as the Abstract, to address the Examiner’s concerns described at paragraphs 2 and 3 of the Office Action. Withdrawal of the objection to the specification is requested.

Applicants have amended the claims to address the Examiner’s concerns described at paragraph 2 of the Office Action. However, the amendments to the claims do not narrow the scope of the claims in any manner. Withdrawal of the objection to the claims is requested.

Applicants submit concurrently herewith a Submission of Replacement Sheets of Drawings to address the Examiner’s concerns described at paragraph 1 of the Office Action.

Fig. 9 is being amended to include the legend “Related Art.” Withdrawal of the objection to the drawings is requested.

All Claims Define Allowable Subject Matter

Claims 1 and 3-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shozakai. Applicants respectfully traverse the rejection under 35 U.S.C. § 103(a). Claim 1 recites a speech recognition system including a first feature vector generation section for reducing noise from an input signal to generate a first feature vector, and a second feature vector generation section for generating a second feature vector from the input signal having the noise. Applicants submit that the second feature vector generation section generates a feature vector from an input signal generated from uttered speech. Support for these features is provided at, for example, Fig. 1 of Applicants’ specification as originally filed.

The Office Action relies on Shozakai’s cepstrum mean vector for speech for a showing of Applicants’ claimed first feature vector generation section, and on Shozakai’s cepstrum mean vector for non-speech for a showing of Applicants’ claimed second feature vector generation section. However, Applicants respectfully submit that the cepstrum mean vector for non-speech cannot be the second feature vector generation section because the cepstrum mean vector for non-speech is not based on a signal from uttered speech. As described at page 1, col. 1, ll. 36-39 of Shozakai, the E-CMN has two steps: an estimation step to calculate one cepstrum mean vector for speech frames for each speaker, and another cepstrum mean vector for non-speech frames for each environment. Accordingly, the cepstrum mean vector for non-speech does not include an uttered speech signal. Thus, Applicants’ respectfully submit that Shozakai does not teach or

suggest at least the features of a second feature vector generation section for generating a second feature vector from the input signal having the noise, as recited in claim 1.

Claims 3-9 depend from claim 1, and recite the same combination of allowable features recited in claim 1, as well as additional features that define over the prior art. Accordingly, it is requested that the rejection under 35 U.S.C. § 103(a), of claims 1 and 3-9, be withdrawn.

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shozakai in view of Takagi. Applicants respectfully traverse the rejection under 35 U.S.C. § 103(a). Claim 2 depends from claim 1, and recites the same combination of allowable features recited in claim 1, as well as additional features that define over the prior art. Applicants respectfully submit that Takagi fails to overcome the above-described deficiencies of Shozakai. Accordingly, it is requested that the rejection under 35 U.S.C. § 103(a), of claim 2, be withdrawn.

CONCLUSION

In view of the foregoing, Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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Dated: May 2, 2005

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